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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/260,837	03/02/1999	DARYL LAWTON	187831	6978

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TWO PRUDENTIAL PLAZA SUITE 4900
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EXAMINER

SINGH, RACHNA

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/260,837

Applicant(s)

LAWTON ET AL.

Examiner

Rachna Singh

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: application, filed 03/02/99;
2. Claims 1-30 are pending in the case. Claims 1, 8, 14, 18, 22, and 24 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 7-12, 14, 18, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al. US Patent 6,272,484, Filed (05/98) and further in view of GroupLab of the University of Calgary, *Awareness Through Fisheye Views in Relaxed-WYSIWIS Groupware*, 1996 and Adobe FrameMaker and SGML 5.5, 1997 Adobe Systems .

Claim 1 cites, “ ***a system for linking to a document, comprising: a document model, representative of components within the document; and a thumbnail image registered with the document model such that selected coordinates within the thumbnail image are each mapped to a data structure selected from the plurality of data structures.***”

Martin discloses a system in which an image file is used to capture an electronic document and a thumbnail representation is generated from the displayed visual representation. Martin teaches that some document formats used include XML, SGML,

and the like. See abstract and column 6, lines 19-37. Martin does not teach registering the document model with the thumbnail image.

GroupLab of the University of Calgary discloses a system in which a document is viewed using two separate windows. The two views are a detailed view and a radar overview (analogous to a thumbnail) of a document. See figure 1. GroupLab teaches a fisheye text viewer in which a user can get a sense of the document's global structure. The user views the detail by clicking on a line of text. The user can view the local detail by selecting focal point within the document.

Adobe FrameMaker and SGML 5.5 is a document preparation system consisting of a what-you-see-is-what-you-get (WYSIWYG) editor, which takes advantage of the document's inherent structure. The document model is in SGML. Together FrameMaker and SGML 5.5 allow the user to view a document without viewing the SGML syntax. This application can be used to publish documents on the web.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to register a document model with the thumbnail since it was common at the time to represent a document using a reduced image of the same document. Moreover, it was well-known to provide a view of an image in which the user could select a certain portion of the text to be viewed such as a line of text as illustrated by GroupLab of the University of Calgary. These document portions are analogous to the claimed "components of a document". Using a document model as a means to select a particular data structure would have been obvious since it defines the structure of a document. Thus incorporating Martin's image capturing system along

with Adobe's Framemaker and GroupLab's Fisheye view to tie the thumbnail image with a document model would have been obvious to one of ordinary skill in the art at the time of the invention since it was common to both represent information related to structure in a reduced image as well as to form thumbnail images of documents consisting of structure such as XML documents.

Claim 2 further cites, ***"wherein the document is a text document and the components comprise one or more page components, textual block components, textual line components and word components."*** FrameMaker and SGML 5.5 Application system consists of documents including various structures and attributes. See page 5. GroupLab's Fisheye Views also illustrate information visualization using reduced images displayed simultaneously with the document. See figure 1. The miniature view allows users to access detail by clicking on a particular portion of the radar view. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate various components as disclosed by Adobe's FrameMaker and SGML 5.5 and GroupLab into a thumbnail registered with a document model since a structured documents includes such components as a text blocks and words and GroupLab illustrates that certain portions are mapped back to the main document from the radar view.

In reference to dependent claim 3, Martin discloses an XML document. Moreover, Adobe's SGML 5.5 is a precursor of XML, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize XML as the document type.

Claim 7 further cites, ***“wherein the components are individually addressable.”*** In a structured document, the components and attributes are individually addressable. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to have components in the documents be individually addressable and incorporate that in the registering of a thumbnail with the document model.

Independent claim 8 cites, ***“a method for registering a low-resolution thumbnail image with a document model having a plurality of data structures representative of components within a document, the method comprising the steps of: creating a full-sized bitmap image representative of the document; identifying coordinates within the full-sized bitmap image; mapping selected coordinates within the full-sized bitmap image; mapping selected coordinates within the full-sized bitmap image to components selected from the document model; and reducing the full-sized bitmap image into the low-resolution thumbnail image.”*** Martin discloses a method that teaches representing a document with a full-sized image including Gif, TIFF, JPEG, and other known graphic formats such as bitmaps. See column 7, lines 1-11. He also teaches reducing the image into a low resolution thumbnail image. See abstracts and column 7, lines 11-31. He does not teach identifying coordinates within the full-sized bitmap image or mapping those coordinates to components in the document model; however, GroupLab of the University of Calgary teaches a means in which a fisheye view allows the user to select a location and retrieve information based on the document's semantic structure.

The user selects a focal point within the document upon clicking on a line of text. Those coordinates are used to represent information in that position. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate GroupLab into Martin in order to generate a low-resolution thumbnail image registered with a document model representative of the components in a document (as disclosed by Adobe's FrameMaker and SGML 5.5) since both GroupLab and Martin deal with the art of representing documents in image form to a user.

In reference to claim 9, FrameMaker and SGML 5.5 Application system consists of documents including various structures and attributes. This includes, components such as pages, textual blocks, etc. See page 5.

In reference to claim 10, Martin discloses an XML document. Moreover, Adobe's SGML 5.5 is a precursor of XML, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize XML as the document type.

Claim 11 further cites, ***"the step of mapping further comprises the step of providing an address link to a computer storage location between the coordinates and each component selected from the document model mapped to the coordinates."*** GroupLab discloses a method in which coordinates describe certain portions of the document by selecting focal point. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a computer storage in linking the components with the coordinates since it registers the document model to the layout of the document in the thumbnail image.

Claim 12 further cites, ***“the step of identifying further comprises the step of identifying coordinates that define a unit of text.”*** GroupLab discloses a system in which a focal point defines an area of text. See page 7. It would have been obvious to one of ordinary skill in the art to identify the coordinates that define the area of text in order to match it to a thumbnail image.

Independent Claim 14 cites, ***“a method for retrieving information from a document represented by a thumbnail image having coordinates registered with components selected from a document model representative of the document, the method comprising the steps of: sensing the position of a cursor over the thumbnail image; determining the coordinates within the thumbnail image corresponding to the sensed cursor position; and retrieving data from the document corresponding to the component from the document model registered with the determined coordinates.”*** GroupLab of the University of Calgary discloses a method in which the user selects a focal point in the text viewer via a mouse in order to view the data in the document. See page 7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate GroupLab into Adobe's FrameMaker and SGML 5.5 since GroupLab tries takes into account the document structure when selecting a focal point. See claims 1 and 8 above.

Claim 18 rejected under the same rationale used to reject claim 14 above.

Claim 22 rejected under the same rationale used to reject claim 8 above.

Claim 23 rejected under the same rationale used to reject claim 12 above.

5. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al. US Patent 6,272,484, Filed (05/98) and GroupLab of the University of Calgary, *Awareness Through Fisheye Views in Relaxed-WYSIWIS Groupware*, 1996 and Adobe FrameMaker and SGML 5.5, 1997 Adobe Systems as applied to claim 8 above and further in view of W3C's Scalable Vector Graphics Specification, Feb 11, 1999.

In reference to claims 4 and 5, W3C's Scalable Vector Graphics Specification discloses a language for describing graphics in XML. See page 3. Since XML is a structured document, it would have made sense to one of ordinary skill in the art at the time the invention was made to incorporate images and vector graphics in a system for registering a thumbnail with a document model since the technology for including images and vector graphics in structured documents already existed.

6. Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al. US Patent 6,272,484, Filed (05/98) and GroupLab of the University of Calgary, *Awareness Through Fisheye Views in Relaxed-WYSIWIS Groupware*, 1996 and Adobe FrameMaker and SGML 5.5, 1997 Adobe Systems as applied to claim 8 above and further in view of Adobe Acrobat 3.0 Online Guide, 1996.

Claim 13 cites, ***"wherein the step of reducing further comprises the step of sub-sampling the full-sized bitmap image."*** It is well known in the art to sub-sample an image when reducing its size. See Adobe Acrobat 3.0 Online Guide, page 46. It would have been obvious to one of ordinary skill in the art at the time the invention was

made to sub-sample a full sized image to form a thumbnail image since reducing the size of an image requires it.

7. Claims 6, 15-17, 19-21, 24-26, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al. US Patent 6,272,484, Filed (05/98) and GroupLab of the University of Calgary, *Awareness Through Fisheye Views in Relaxed-WYSIWIS Groupware*, 1996 and Adobe FrameMaker and SGML 5.5, 1997 Adobe Systems as applied to claims 1 and 14 above and further in view of Edupage Newsletter, Feb 4, 1997.

Claim 6 cites, ***“further comprising a word-at-a-time display associated with the thumbnail image for displaying the data represented by selected components from the document model, the components selected in response to interaction with the thumbnail.”*** Tenax Software discloses an applet for reading the text of a document one word at a time. See page 3 of Edupage Newsletter. While Tenax does not disclose this system in response to interaction with a thumbnail, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the applet with the system described jointly by Martin, GroupLab, and Adobe since the system represents a document model consisting of text and other components registered with a thumbnail.

Claim 15 further cites, ***“ the step of streaming to a word-at-a-time display the data retrieved from the document.”*** Tenax discloses an applet for streaming the text of a webpages documents. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the applet with the system described

jointly by Martin, GroupLab, and Adobe since the system represents a document model consisting of text and other components registered with a thumbnail.

Claim 16 further cites, ***“the step of altering the appearance of the thumbnail image to provide an indication of the information streamed to the word-at-a-time display.”*** GroupLab discloses a method in which the radar view is highlighted when a selected component is chosen. See page 2, figure 1. It would have been obvious to alter the appearance of the thumbnail image when displaying the word-at-a-time display since it indicates to the user the portion of the document being streamed.

Claim 17 further cites, ***“the step of streaming continued until a delimiter reflecting a unit of the document organization is reached.”*** GroupLab's method of selecting text limits the presentation of components in the document. Thus it would have been obvious to stream only the components within a delimiter since the user would only want certain text to be displayed from the thumbnail image.

Claim 19 rejected under the same rationale used to reject claim 15 above.

Claim 20 rejected under the same rationale used to reject claim 16 above.

Claim 21 rejected under the same rationale used to reject claim 17 above.

Independent claim 24 is rejected under the same rationale used to reject claims 1 and 6 above.

Claim 25 cites, ***“the hand-held computer as recited in claim 24, wherein the document is an HTML document.”*** Martin's method consists of making images of various documents including HTML documents. See column 6, lines 30-35.

Claim 26 further cites, ***“the document model comprises one or more hyperlinks and the word-at-a-time display is adapted to display hyperlinks in a manner that attracts the visual attention of a user.”*** Tenax's discloses an applet which consists of a word-at-a-time display that streams text of a document. The streaming text is a way of attracting the visual attention of a user.

Claim 28 cites, ***“wherein the thumbnail image is adapted to track the context of information streamed to the word-at-a-time display.”*** GroupLab discloses a method in which the radar view highlights the text that is being displayed on the word-at-a-time display. It would have been obvious to one of ordinary skill in the art at the time the invention was made to track the information being streamed in the thumbnail image since it is representative of the document.

Claim 29 further cites rejected under the same rationale used to reject claim 26 above.

8. Claims 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al. US Patent 6,272,484, Filed (05/98) and GroupLab of the University of Calgary, *Awareness Through Fisheye Views in Relaxed-WYSIWIS Groupware*, 1996 , Adobe FrameMaker and SGML 5.5, 1997 Adobe Systems, and Edupage Newsletter, Feb 4, 1997 as applied to claims 25 and 29 above and further in view of “HTML tags at a glance”.

Claim 27 further cites, ***“wherein the manner that attracts the visual attention of the user is flashing the hyperlink in the word-at-a-time display.”*** It is notoriously well known in the art to flash a hyperlink. See “HTML tags at a glance” , page 15. It

would have been obvious to one of ordinary skill in the art at the time the invention was made to flash a hyperlink in a word-at-a-time display since the word-at-a-time display is representing a portion of the document.

Claim 30 further cites rejected under the same rationale used to reject claim 27 above.

Response to Arguments

9. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Martin teaches generating a thumbnail representation of a structured document, GroupLab discloses a radar view of a document in which a user can selectively link to particular portions of the main document from the radar view which takes into account the semantic structure of the document, and Adobe FrameMaker and SGML 5.5 teaches a document preparation system consisting of a what-you-see-is-what-you-get (WYSIWYG) editor, which takes advantage of the document's inherent structure. The document model is in SGML. Together FrameMaker and SGML 5.5 allow the user to view a document without viewing the SGML syntax. This application can be used to publish documents on the web.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to register a document model with the thumbnail since it was common at the time to represent a document using a reduced image of the same document. Moreover, it was well-known to provide a view of an image in which the user could select a certain portion of the text to be viewed such as a line of text as illustrated by GroupLab of the University of Calgary. These document portions are analogous to the claimed "components of a document". Using a document model as a means to select a particular data structure would have been obvious since it defines the structure of a document. Thus incorporating Martin's image capturing system along with Adobe's Framemaker and GroupLab's Fisheye view to tie the thumbnail image with a document model would have been obvious to one of ordinary skill in the art at the time of the invention since it was common to both represent information related to structure in a reduced image as well as to form thumbnail images of documents consisting of structure such as XML documents.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachna Singh at 703.305.1952. The examiner can normally be reached on Monday-Friday from 8:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at 703.308.5186.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 703.305.3900.

Any response to this action should be mailed to:

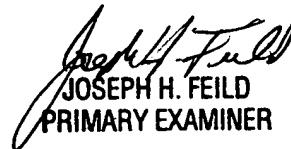
Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

After-Final	703.746.7238
Official	703.746.7239
Non-Official/Draft	703.746.7240

Hand-Delivered responses should be brought to Crystal park II, 2121 Crystal Drive, Arlington VA., Sixth Floor (Receptionist).

Rachna Singh
August 22, 2002


JOSEPH H. FEILD
PRIMARY EXAMINER